MC Pro

Euphonix Media Application Controller

Multiple Workstation Installation Guide

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Chapter 1: Hardware Connections and MC Client Setup

Schematics and parts are listed for each DAW setup in Appendix A: *DAW Parts List and Schematics*.

1.1 Connect the MC

1. Unpack the MC from its packaging and select a place to put it. The MC should go on a hard flat surface in order to allow proper ventilation. (System 5-MC has its own frame for the MC and CM408T modules).

NOTE: *The MC and CM408T modules require sufficient ventilation space on the bottom. The MC has detachable feet for standalone users without a System 5 frame, but the CM408T modules do not. If you do not use a System 5 frame, you MUST have at least 1 inch of clearance under the CM408T modules and MC or* ***damage to the units may occur.***

Use Figure 1-1 as a reference to connect the MC to its components.

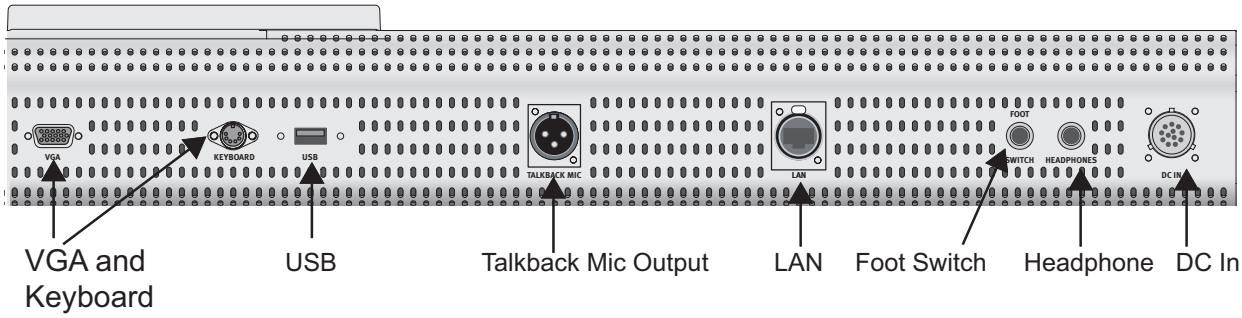

Figure 1-1 MC Rear Panel

2. Plug the power supply into the **DC In** port on the right side as you look at the rear panel.

   Be careful plugging this in as the connector has easily-bent pins. When the pins are seated, twist the ring on the connector's side until it locks. Do not turn on the MC yet; network configuration must be completed first.

WARNING: *Attach power supply to the MC* ***BEFORE*** *plugging into AC power or the unit may be damaged.*

1.2 Network Configuration

1.2.1 MC Standalone

Using the RJ-45 Ethernet (included) cables, connect your workstations to the **LAN** ports on the Netgear RP614 router. Then connect the MC to one of the other **LAN** ports on the Netgear router. Because the Netgear has four **LAN** ports, you must use an additional Ethernet switch if you have more than *three* workstations.

NOTE: *You have now created a small local area network comprised of just the MC and your workstations.*

The MC ships with DHCP enabled, allowing it to automatically obtain an IP address. The Netgear RP614 has a DHCP server and hands out IP addresses to the devices connected to its LAN ports (the MC and your workstations). This allows for easy plug and play network configuration. For this reason, the Netgear router must be turned on before the MC and your workstation.

1.2.2 System 5-MC

1. Connect the MC and CM408T modules to **LAN** ports on the SonicWALL 1260 router.
2. Connect your workstations to **LAN** ports on the SonicWALL.

   The MC ships with DHCP enabled, allowing it to automatically obtain an IP address. The SonicWALL ships from Euphonix with its DHCP server enabled, such that it hands out IP addresses to the MC, CM408T modules, and your workstations. For this reason the SonicWALL must be turned on before the MC, CM408T modules, and your workstations.

1.3 EuCon Software Installation

Follow these instructions to install the EuCon Software on *each* workstation:

1. Insert the *Euphonix MC Software Installation* CD in your workstation's CD/DVD drive.
2. In Mac OS X, double-click the CD icon on the desktop, and double-click the *EuConWS* package.

   The Install program launches. Proceed to Step 4.
3. In Windows, if AutoRun is enabled, the setup program starts from the CD automatically. If AutoRun is *not* enabled:

a. Minimize all programs.

b. Double-click **My Computer** on the desktop to display the drives on your computer.

c. Double-click the CD/DVD drive.

d. Double-click the *EuConWS* executable file.

The Setup Wizard begins running.

4. Click **Next** and choose a directory to install the software.

The default Windows directory is C:\Program Files\Euphonix\EuCon.

The default Macintosh OS X directory is the Applications folder.

5. For Windows installations, click **Next** to customize the software components to install. **EuCon Workstation Core** is automatically selected (this is the basic software used to communicate with the MC. Select further options according to your DAW:

a. For Nuendo workstations, select only the **EuCon adapter for Nuendo** and **VST plugin layouts for Nuendo** options.

b. For Pyramix, select only the **EuCon adapter for Pyramix** option.

c. For all other DAWs, select **Studio Monitor Express** or **Studio Monitor Pro 2** option.

WARNING: *Running Studio Monitor Express and Studio Monitor Pro 2 on the same machine may cause conflicts and is not recommended*

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6. Click **Next** to continue.

7. Select locations for application shortcuts in the **Start** menu.

The default is a **EuCon** folder in the **Start** menu with shortcuts to the MC's applications.

8. Click **Next** to continue.

The Wizard now displays a summary of all options selected during the setup process. To change them, click **Back** until the desired setup option appears.

9. Click **Install**.

The Wizard installs the selected components to your workstation.

10. The windows installer may ask you about two Euphonix drivers: Euphonix Virtual MIDI Driver and Euphonix Virtual Keyboard. Click **Continue Anyway**.

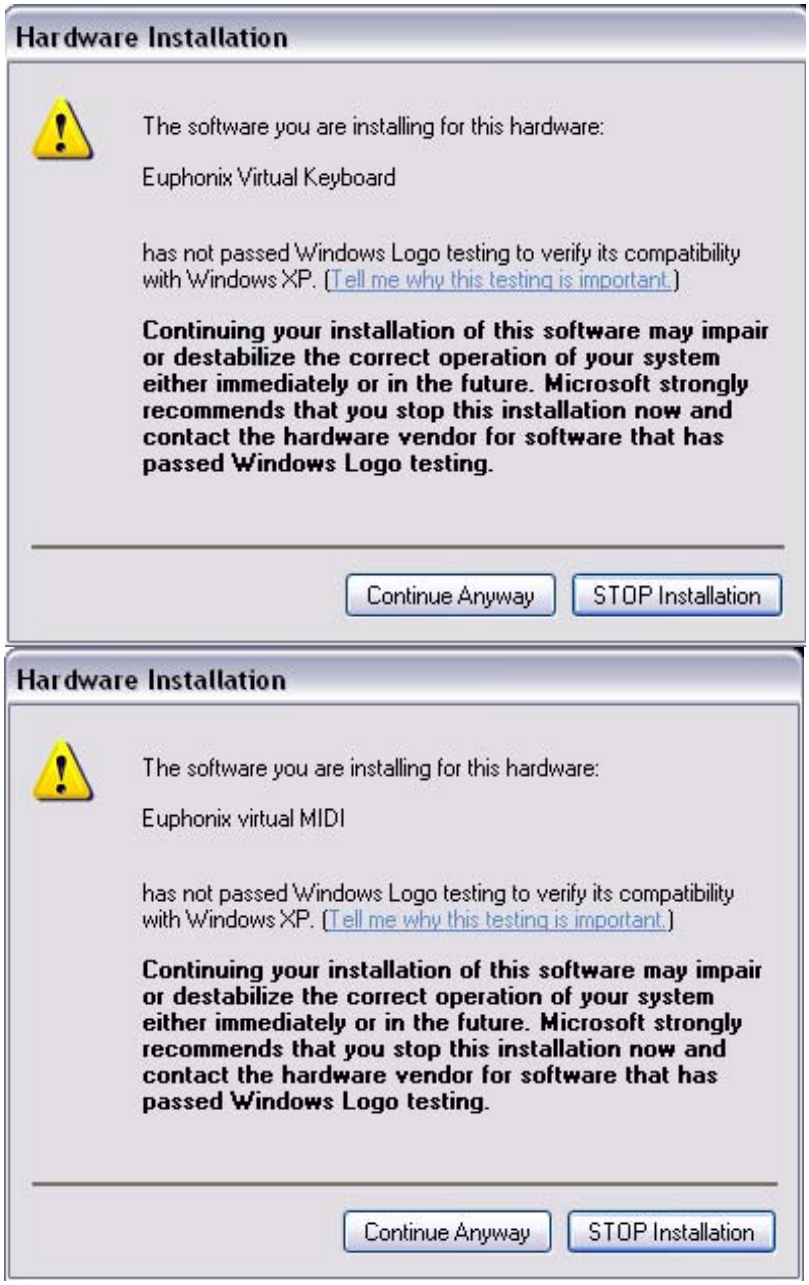

Hardware Installation
The software you are installing for this hardware:
Euphonix Virtual Keyboard
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation
Hardware Installation
The software you are installing for this hardware:
Euphonix virtual MIDI
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Figure 1-2 New Driver prompt

Windows will detect the new hardware. Do not press anything.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel

Figure 1-3 Found New Hardware dialog

11. Click **Finish** to exit the Wizard.
12. Repeat these steps for *each* workstation.

NOTE: *When first running the MC Client, the Windows Firewall may ask whether to block or unblock MC Client and EuCon Discovery from accessing the Internet or local area network. Because all communication between the MC Client and the MC occurs through the workstation's network connection, you must select* ***Unblock*** *or it will not communicate with the MC.*

1.4 Workstation Connection and Control

1. To connect the MC to your workstations, make sure the MC Client is running on all workstations, and thenpress the Strip Control **Setup** key on the right side of the MC.

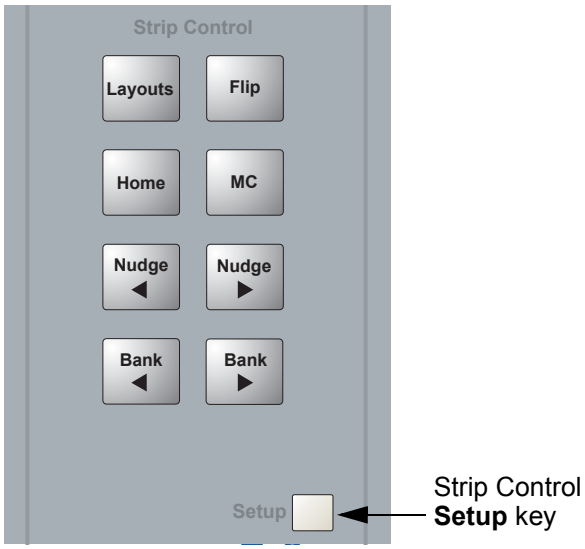


Figure 1-4 Strip Control Setup key

The Touchscreen in Figure 1-5 displays all workstations available on the network in the right pane. There are two choices: none/disconnect and your workstation (showing computer name, user name, and operating system). Figure 1-5 displays a multiple workstation setup.

Figure 1-5 Workstation Touchscreen

2. Touch the desired **Workstation** key on the left of the Touchscreen.

   These buttons map to the physical **Workstation** keys on the upper right of the MC.

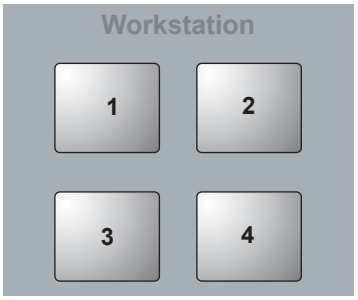


Figure 1-6 Workstation keys

3. Touch your workstation in the list to assign it to the selected number.
4. Repeat Steps 2 and 3 for each workstation to assign them to **Workstation** keys.
5. Press the Strip Control **Setup** key again to exit Workstation assignment mode.
6. To control a workstation, press the **Workstation** key to which you assigned that workstation. The MC's right-hand trackball (which acts as the mouse) and keyboard should now function just as if they were connected directly to your workstation.

1.5 Display Switching

The MC uses the Ontrack ADU-200 relay device to control a KVM (keyboard/video/mouse) switch with an RJ-45 port, such as the Gefen eX-Tend-It series. To implement this functionality:

1. Connect the video outputs of your workstations to the KVM inputs.
2. Connect the KVM video output to your main display.
3. Connect the Ontrack ADU-200's USB plug to the MC's USB port (left side of MC's rear panel).
4. Connect a shielded RJ-45 Ethernet cable from the Ontrack's RJ-45 port to your KVM's RJ-45 port.

   The cable *MUST BE SHIELDED* or the switching will not function properly. Check that the RJ-45 connectors have metal ends.

Now when a **Workstation** key is pressed, the MC sends a switch command to the KVM and changes your display to reflect that KVM input.

NOTE: *Since the MC does not know the order your workstations were connected to the KVM, we recommend assigning the workstation attached to KVM input 1 to **Workstation** key 1, the workstation attached to KVM input 2 to **Workstation** key 2, etc. Otherwise the MC will not control the desired workstation when the display is switched.*

1.6 Ready to Proceed

You have successfully connected your MC to your workstation. Proceed to the chapter of this installation guide for your DAW software to configure it to work with the MC.

Chapter 3: *Logic Pro*

Chapter 2: *Nuendo–PC and Mac*

Chapter 4: *Pro Tools*

Chapter 5: *Pyramix*

NOTE: *If your MC did not connect properly, or a step failed, see Chapter 6: Support and Troubleshooting.*

Chapter 2: Nuendo–PC and Mac

To enable Nuendo to work with the MC, you must obtain a Nuendo EuCon Adapter license from Euphonix and download it to your Nuendo USB protection device (dongle):

1. Close all open applications. Make sure your Syncrosoft USB dongle is plugged into your Nuendo workstation.
2. Start the Syncrosoft License Control Center by choosing **Start Menu->Steinberg Nuendo 4->License Control Center**.

   Windows: Click **Start Menu->Syncrosoft->License Control Center**.

   OS X: Navigate to the **Applications\Syncrosoft** folder and run **License Control Center**.
3. Choose **License Download** from the **Wizards** menu.

   Choose **License Transfer** to transfer an existing Nuendo EuCon license to a new USB dongle.
4. When prompted, enter the activation code for Nuendo EuCon provided by Euphonix.
5. Make sure you are downloading the correct license, then click **Next**.
6. If you have more than one Syncrosoft USB dongle attached to your workstation, select the one onto which you wish to download the license. Click **Next**.
7. Press **Download** to transfer the license onto your USB dongle.
8. Close the wizard and open Nuendo.

The Nuendo EuCon Adapter must be installed must be installed during the EuConWS software installation (see page 7). Note that this is the MC Client's Nuendo adapter. For Nuendo to communicate with the MC, Nuendo's EuCon device must be added in the Nuendo Device Setup dialog:

1. Choose **Device Setup** from Nuendo's **Devices** menu.

   The Device Setup dialog opens.
2. Click the + button (add) on the top-left.

   A drop-down list of devices appears. **EuCon** should appear near the top of the list. If not, check that you have successfully downloaded the license for the EuCon Adapter to your USB dongle using the License Control Center.

3. Select **EuCon** from the drop-down list.

   The EuCon device is added and the MC surface immediately updates with the Nuendo default Application Set to reflect the open Nuendo project. For the System 5-MC, the MC auto-assigns the Nuendo channels to the CM408T strips, beginning with channel 1 on the first CM408T's leftmost strip.

Steinberg has created a default Nuendo Application Set with the most commonly used functions and commands.

Chapter 3: Logic Pro

Logic Pro 8.02 has EuCon support and connectivity built into the application. With the MC Client running on your Macintosh, load Logic Pro, and the MC automatically connects to the application and displays the Logic Pro application set.

Versions of Logic prior to 8.02 do not have EuCon support. However, the updates for Logic are part of Apple's Software Update program, so simply check for new updates (**Apple Menu-> System Preferences-> Software Update -> Check Now**), download, and install the Logic 8.02 update. Then re-open Logic and the MC will connect. You have now successfully set up the MC to operate with your Logic Pro workstation.

- See the MC Operation Manual to learn about the MC's application sets, touch-screens, and any other information.
- Check the Euphonix website (www.euphonix.com) for technical bulletins, product support notices, and new software releases.
- Please register your MC by filling out the online registration form at www.euphonix.com/registration. Registration is required to download software updates.

Chapter 4: Pro Tools

4.1 Workstation Configuration

After installing the EuCon software and restarting your Mac, the MC Client launches automatically upon startup of OS X and EuCon applications can now function.

To configure your HUI or Mackie Control applications to work with the MC:

1. Click **Apple Menu-> System Preferences**.

   The System Preferences dialog opens.

2. Click on EuPrefsPane.

   The Euphonix Preferences pane opens.

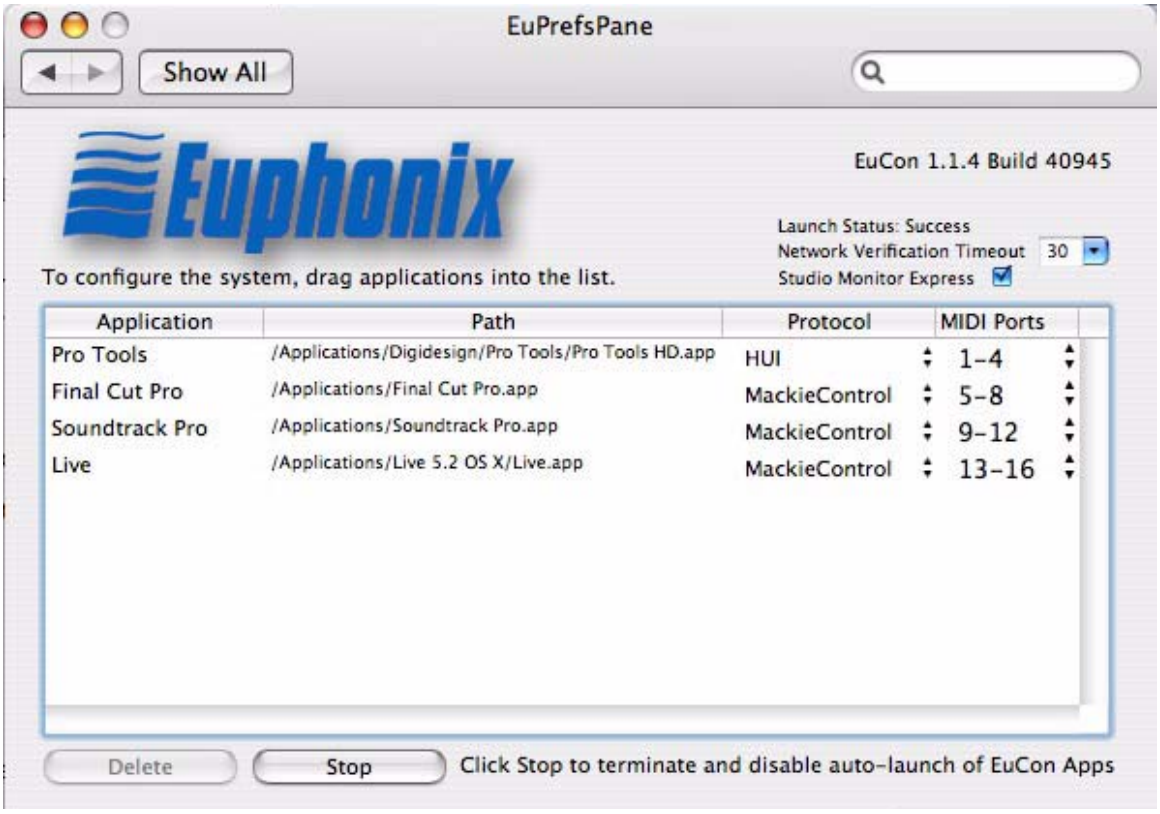


Figure 4-1 Euphonix Preferences pane

3. Open a Finder window and navigate to the folder containing the HUI or Mackie Control application(s) you wish to use.
4. Drag the application(s) into the Euphonix Preferences pane.

NOTE: *You must drag the actual application icon into the preferences pane, not a shortcut or alias!*

5. For each application, select **HUI** or **Mackie Control** from the drop-down menu under **Protocol**, and select the MIDI ports for the application to use.

NOTE: *The EuCon software sets up a virtual MIDI driver with 32 ports, and each application can use up to four (the limit with HUI applications). Keep track of which application uses which ports in order to configure them properly.*

6. Close the Euphonix Preferences pane. When prompted, restart your Macintosh.
7. Connect the MC to the Macintosh.

4.2 Pro Tools Configuration

To configure Pro Tools to recognize the MC:

1. Launch Pro Tools.
2. Choose **Peripherals** from the Operations menu.

   The Peripherals dialog opens.
3. Click the **MIDI Controllers** tab.

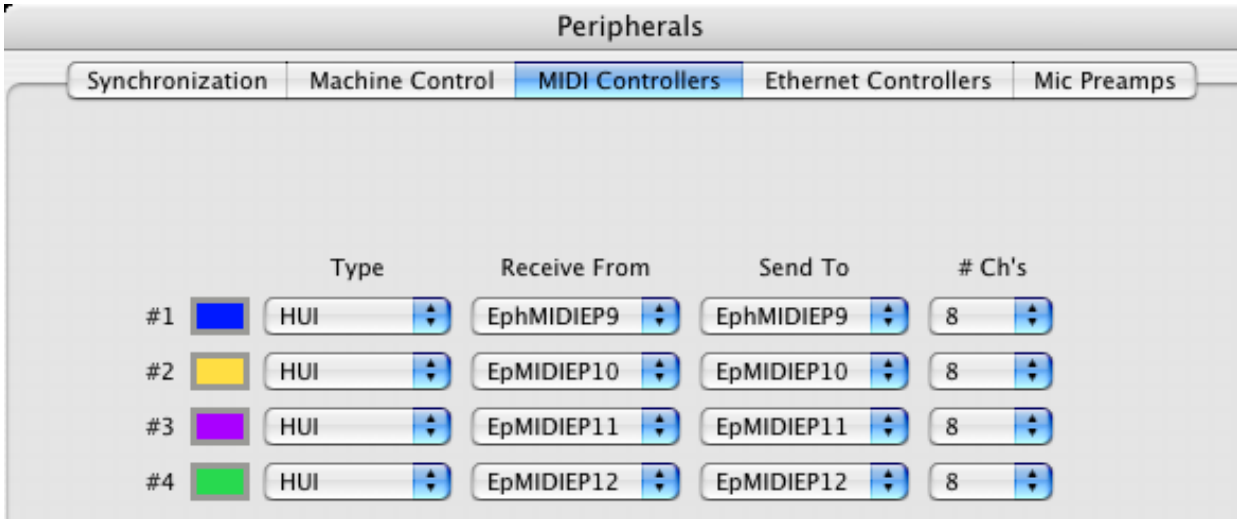


Figure 4-2 Pro Tools Peripherals dialog

Pro Tools has configuration boxes for the four possible controllers. MC standalone users need to configure only one controller. System 5-MC users need to configure *one controller for each CM408T module* because the MC mirrors one CM408T and does not require an extra HUI controller.

4. For each controller you use, select **HUI** from the **Type** drop-down menu.
5. Configure each controller to have the input and output MIDI ports set for ProTools in the Euphonix Preferences Pane. Click on the **Receive From** and **Send To** drop-down menus, hover over **Predefined**, then select from the Euphonix MIDI ports.

   For example, if you set ProTools to use MIDI ports 9–12, your first HUI controller's receive and transmit ports should be set to **EphMIDIEP9**.

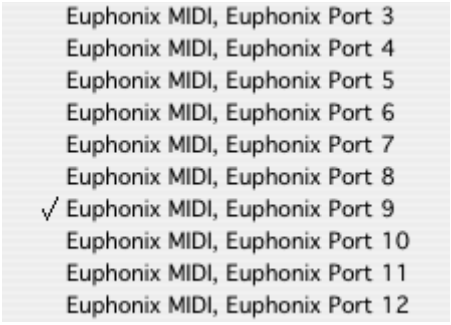

Euphonix MIDI, Euphonix Port 3
Euphonix MIDI, Euphonix Port 4
Euphonix MIDI, Euphonix Port 5
Euphonix MIDI, Euphonix Port 6
Euphonix MIDI, Euphonix Port 7
Euphonix MIDI, Euphonix Port 8
√ Euphonix MIDI, Euphonix Port 9
Euphonix MIDI, Euphonix Port 10
Euphonix MIDI, Euphonix Port 11
Euphonix MIDI, Euphonix Port 12

Figure 4-3 Excerpt from Pro Tools MIDI menu

6. Select **8** from the **Ch #** drop-down menu as the number of channels for each controller.
7. Press **OK**.

   The MC updates the channel and track information.

NOTE: *System 5-MC owners with joystick panners can set the last controller to **Surround Panner** to use the MC's joysticks to control panning in Pro Tools. See the Media Application Controller Operation Manual for more information.*

Chapter 5: Pyramix (v6.1.3)

To enable the use of the MC with Pyramix, the **EuCon adapter for Pyramix** checkbox must be selected during the MC Client software installation (see page 7). Then add the MC as an installed controller in Pyramix:

1. Launch the Pyramix Virtual Studio software.
2. Press the **Pref** key on the top bank of the MC Soft Keys.

   The bank changes to show two options:

   Home: Restores the first bank of soft keys

   Show Settings: Opens the Pyramix Settings dialog box (alternatively, choose **All Settings** from the **Settings** menu in Pyramix Virtual Studio).
3. Click **Show Settings**.

   A dialog appears showing a list of the various types of adjustable settings on the left side.

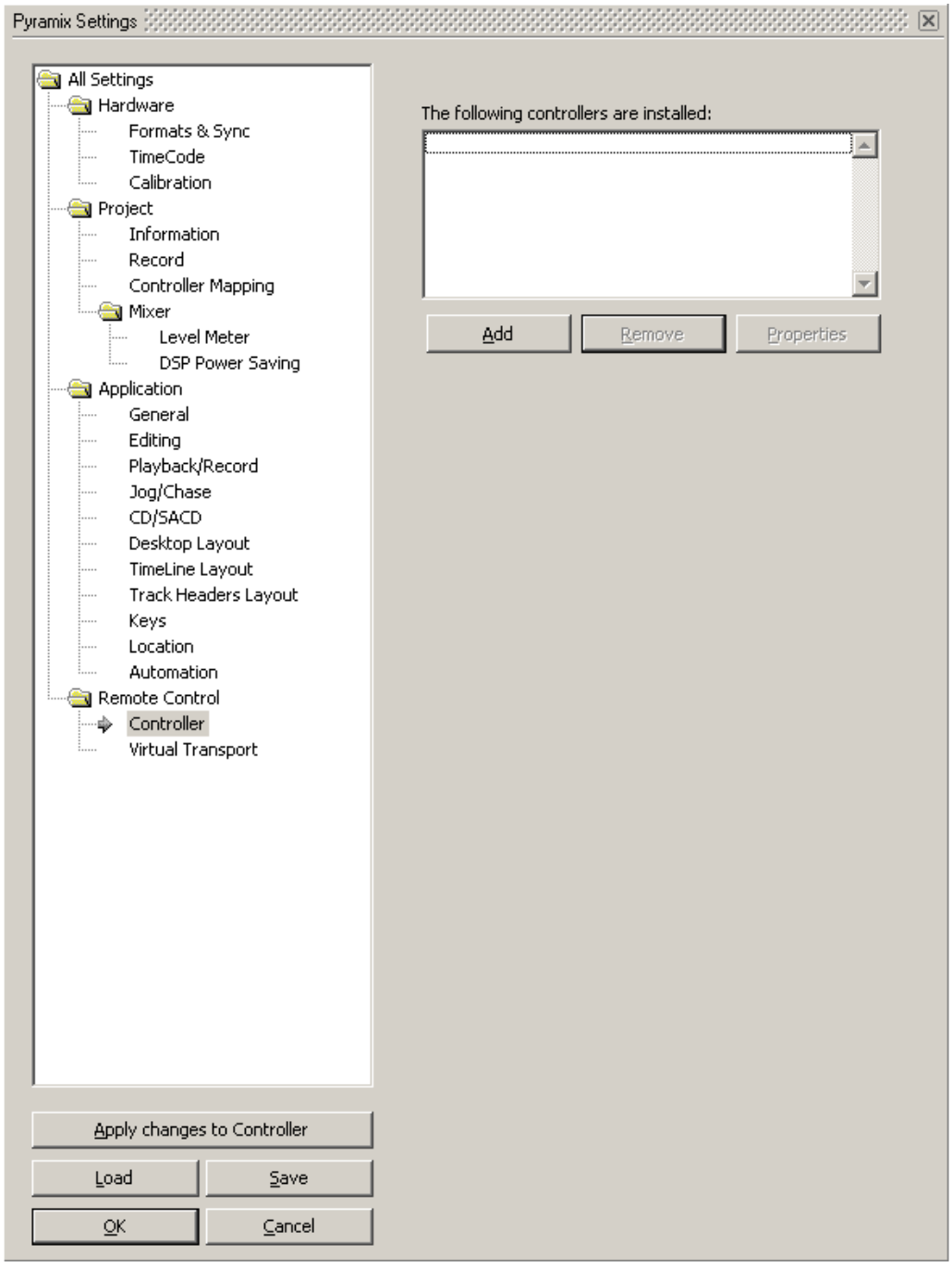


Figure 5-1 Pyramix Settings

4. Click **Controller**.

   The right pane shows any installed controllers. However, at this point the pane is empty unless other interface controllers have been installed previously.

5. Click the **Add** button.

   The Controller Properties dialog opens.

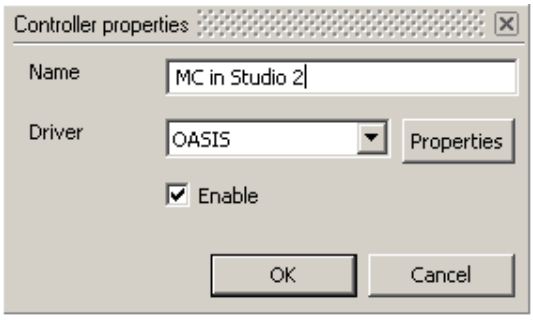


Figure 5-2 Controller Properties dialog

6. Type the desired name for the MC in the **Name** field (i.e., *MC in Studio 2*).
7. Select the **Enable** checkbox.
8. Choose **OASIS** from the **Driver** drop-down selection box.
9. Click the **Properties** button next to the **Driver** selection box.

   The OASIS Configuration Properties dialog opens.

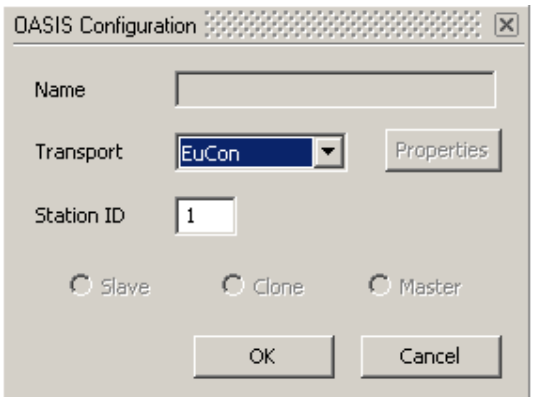


Figure 5-3 OASIS Configuration Properties dialog

10. Select **EuCon** from the **Transport** drop-down menu.

    If **EuCon** is not in the drop-down menu, it is probably because the MC Client is not running. Check that the MC Client menu tray icon is present. If not, launch the MC Client using the shortcuts in the **Start** menu or the **Euphonix** folder.

Leave the **Station ID** at its default setting of 1 unless you have multiple controllers, in which case simply increment the setting (i.e., if two controllers are installed, set the **Station ID** = 3 for the MC).

11. Press **OK** to exit that dialog, press **OK** on the Controller Properties dialog and press **OK** on the General Settings dialog.
12. Close Pyramix, reboot the workstation, and then open Pyramix Virtual Studio.

    Pyramix will not connect to the MC properly without rebooting the workstation.

The MC will now load the default Pyramix Application Set if a project is open. Otherwise, the Application Set will *not* be loaded, but the Soft Keys at the top-left illuminate to show that EuCon communication is enabled.

Chapter 6: MOTU Digital Performer 6.02

6.1 Configuration

1. In DP 6, goto: Setup > Control Surfaces
2. Press +
3. Select EuCon from the dropdown menu

Figure 11-16 DP6 - Add Control Surface

NOTE: *"Listen to Control Surfaces in Background" should be Enabled at all times when using EuCon Control Surface Driver.*

Chapter 7: Support and Troubleshooting

The MC is a professional control surface engineered with industrial-grade components, and it should operate reliably in your studio setup. It is, however, a complex device and issues can arise due to environmental or other factors. Euphonix provides a one year warranty on the MC and CM408T modules.

If you are having trouble with your MC, these sections can either resolve the problem or provide useful troubleshooting information for our technical support personnel.

7.1 Support

Euphonix maintains a support section for the MC on our website: http://www.euphonix.com/support/mc.htm. This page has the latest versions of:

- the EuCon software (for both workstations and the MC);
- this manual;
- constantly expanding FAQ section.

You must sign up for a user account to download new versions of the EuCon software. If you cannot find an answer for your question in this manual, consult the FAQ section to see if it is answered there.

Those who purchased their MC through a VAR (*value-added reseller*), such as Guitar Center Pro, are supported by that reseller. Euphonix does not provide service directly to VAR customers. This avoids confusion between Euphonix and your VAR regarding your MC and its support needs. System 5-MCs are supported only by Euphonix.

7.2 Troubleshooting

If you are having problems with your MC or System-5 MC:

1. Look for a solution in the *Common Issues and Solutions* section below.
2. Then try the Euphonix website's FAQ or technical bulletins.
3. If you still are unable to solve your issue, contact your VAR (if applicable) or Euphonix for support.

   Our technical support phone hours (650-855-0412) are Monday through Friday 9 AM – 5 PM. The website is always available.

Common Issues and Solutions

My MC does not turn on.

Make sure the MC's power connector is securely connected. Push on it lightly to seat it, twist the outer ring to lock it onto the MC, and make sure the transformer is plugged into the wall.

The MC cannot connect to a workstation; the workstation does not appear in the MC's Workstation Setup screen.

- Make sure the MC Client is installed on the workstation, and that the Windows Firewall is not blocking the MC Client and EuCon Discovery applications.
- The MC, CM408T modules, and workstation must be connected to the same network segment (router/switch): the Netgear RP614 or SonicWALL 1260.
- Both the workstation and MC must have the *same* version of the EuCon software.
- To further troubleshoot this issue, we recommend using a cross-over cable between the MC and one workstation, to remove network variables from the equation. Once this setup is working, re-connect the MC and workstation(s) to the switch/router, and verify proper operation.

The MC does not connect to Nuendo.

- The Nuendo EuCon Adapter must also be installed when installing the EuCon software on your workstation. Make sure Studio Monitor Pro is *NOT* installed, as SME usurps Nuendo when installed on the same machine.
- Make sure your Nuendo license includes EuCon connectivity, and that you have added the EuCon device in Nuendo Device Setup.
- Make sure the MC is properly connected to the workstation. The MC's Main Touchscreen should display the network name of your workstation in the upper left-hand corner.

The MC does not connect to Pyramix.

- The Pyramix EuCon Adapter must also be installed when installing the EuCon software on your workstation. Make sure Studio Monitor Pro is *NOT* installed, as SME interferes with Pyramix-MC connectivity.
- Verify that the Pyramix connection procedure has been properly executed, and that the MC is properly connected to the workstation.

The talkback mic does not produce any audio.

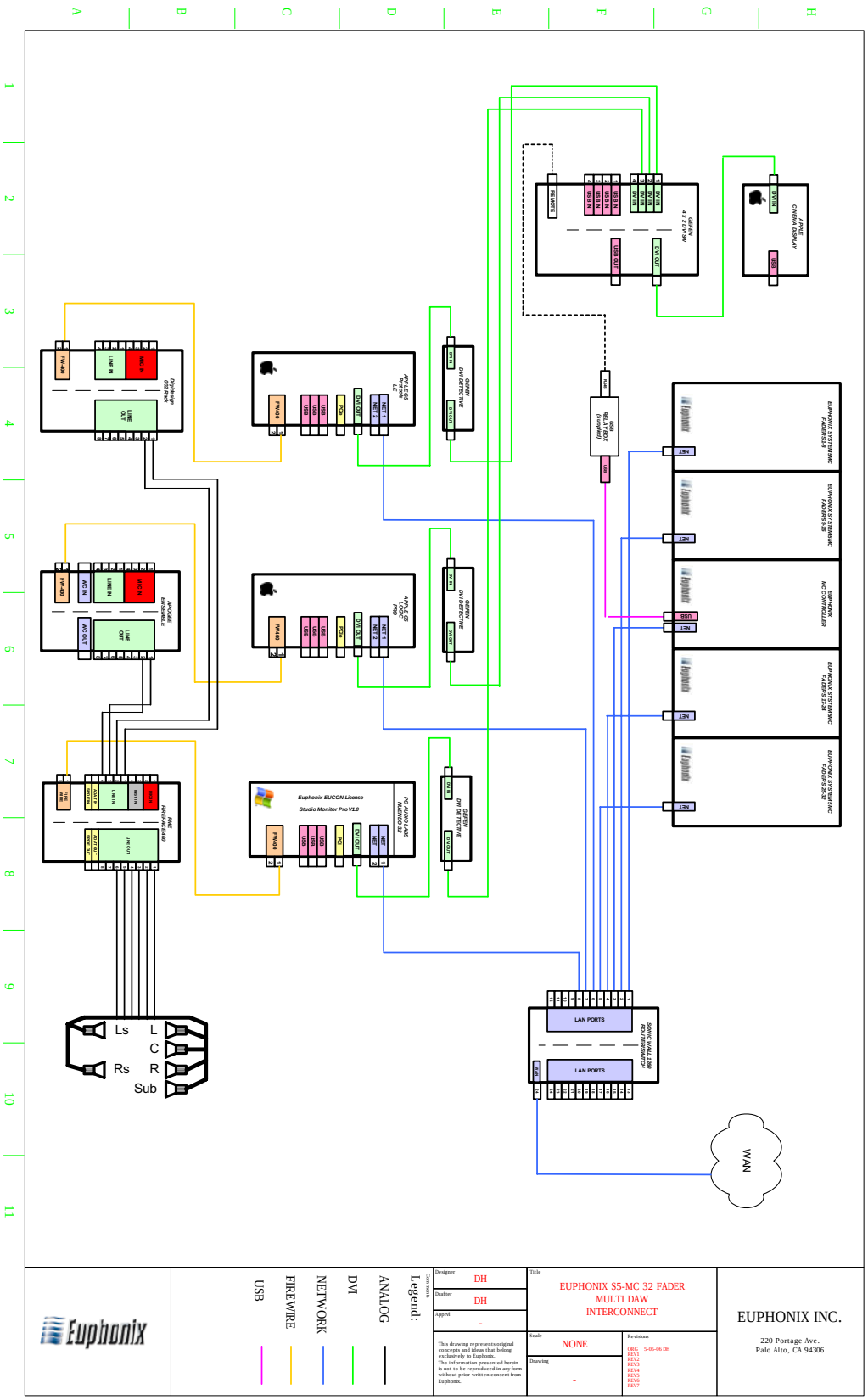
The talkback mic is a condenser microphone and the XLR output is at mic level so it must be connected to a pre-amp with +48V phantom power.

Appendix A: DAW Parts List and Schematics

The following diagrams illustrate how to use the supplied parts to interconnect the MC with the supported DAWs.

System 5 MC *(32 Fader shown)*

QTY	DESCRIPTION
1	**Euphonix 32 Fader System 5 MC**
1	Sonic Wall Pro 1260 DHCP Router/Ethernet Switch
1	Apple 20" Cinema Display
1	Euphonix USB Relay Box *(included with Euphonix packout)*
1	Euphonix RJ45 Control Cable *(included with Euphonix packout)*
1	DVI Cable M-M *(included with Cinema Display packout)*
6	Ethernet Cable
1	USB Memory Stick (for app sets and configuration data)
1	**PC Audio Labs (or equivalent) Workstation fitted:**
1	Nuendo 4.2.2 *(PC Version)*
1	Euphonix Nuendo EUCO License
1	Euphonix Studio Monitor Pro V1.0
1	RME Fireface 400
1	Gefen DVI Detective
2	DVI Cable M-M *(1 included with Gefen packout)*
1	Firewire Cable
1	Ethernet Cable
	Audio Cables for Speakers
1	**Apple G5 Workstation fitted:**
1	Apple Logic Pro 8.02
1	Apogee Ensemble Audio Interface
1	Gefen DVI Detective
2	DVI Cable M-M *(1 included with Gefen packout)*
1	Firewire Cable
1	Ethernet Cable
	Audio Cables to Nuendo Audio Input(s)
1	**Apple G5 Workstation fitted:**
1	DigiDesign ProTools LE7 (or higher)
1	DigiDesign 007 Rack
1	Gefen DVI Detective
2	DVI Cable M-M *(1 included with Gefen packout)*
1	Firewire Cable
1	Ethernet Cable
	Audio Cables to Nuendo Audio Input(s)


A
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Euphonix EUCON License
Studio Monitor Pro V1.0
Legend:
ANALOG
DVI
NETWORK
FIREWIRE
USB
Euphonix
Designer
DH
Drafter
DH
Appvd
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Comments
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Title
EUPHONIX S5-MC 32 FADER
MULTI DAW
INTERCONNECT
Scale
NONE
Drawing
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Revisions
ORG 5-05-06 DH
REV1
REV2
REV3
REV4
REV5
REV6
REV7
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